Risk factors and clinical outcomes of multidrug-resistant *Acinetobacter baumannii* bacteremia in a University Hospital, Thailand

S. Anunnatsiri*, P. Tonsawan

Khon Kaen University, Khon Kaen, Thailand

Background: Multidrug-resistant (MDR) *Acinetobacter baumannii* has become a major threat of nosocomial infection worldwide. The study aimed to assess the incidence of bacteremia due to MDR *A. baumannii*, factors associated with the infection, and clinical outcomes.

Methods: A retrospective study was conducted for evaluating 49 episodes of *A. baumannii* bacteremia in adult patients admitted to a university hospital in Northeast Thailand between 2005 and 2007. Comparison of the data between patients with susceptible *A. baumannii* bacteremia and those with MDR *A. baumannii* bacteremia was performed.

Results: The incidence of MDR *A. baumannii* bacteremia was 3.6 episodes per 10 000 hospital admission. The mean (SD) age of the patients was comparable between the 2 study groups [56.9 (17.3) years in susceptible group and 59.4 (16.8) years in drug-resistant group]. Most of the patients had pre-existing diseases; cancer, chronic kidney disease, and diabetes mellitus were the 3 most common. The most common source of bacteremia was pneumonia. The significantly independent factors associated with MDR *A. baumannii* bacteremia were prior ICU admission (odds ratio (OR) 10.01, 95% confidence interval (CI) 1.39-72.20), prior beta-lactam/beta-lactamase inhibitor use (OR 8.06, 95%CI 1.39-46.64), and prior carbapenems use (OR 11.40, 95%CI 1.44-89.98). Overall mortality rate was significantly higher in MDR group (48% vs. 91.7% in susceptible and MDR group, respectively, $p = 0.001$). The significantly independent factors related to mortality were APACHE II score (OR 1.25, 95%CI 1.03-1.52) and secondary bacteremia (OR 14.86, 95%CI 1.37—161.90).

Conclusion: This study revealed that the significantly independent factors associated with MDR *A. baumannii* bacteremia were prior ICU admission and prior use of broad spectrum antibiotics. This infection caused high mortality rate. Emphasize on prevention, strict application of infection control and appropriate use of antibiotic could reduce the risk and control this infection.

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56.004

Assessment of health care workers occupational exposure to HIV and post-exposure prophylaxis (PEP) in health centers and hospitals of Addis Ababa, Ethiopia

T. Alemayehu

Abt Associates Inc. USAID/Private sector Program for TB and HIV in Ethiopia, Addis Ababa, Addis Ababa, Ethiopia

Background: Occupational exposure that places a worker at risk of HIV infection is a percutaneous injury, contact of mucous membrane or skin with blood or other body fluids. Exploring the extent of exposures, knowledge occurrence of occupational exposures and knowledge and practice regarding HIV post-exposure prophylaxis among health care workers in health centers and hospitals of Addis Ababa.

Methods: A facility based cross-sectional study, involving 372 health care workers, was conducted in Addis Ababa from March to April 2008. A pre-tested, interviewer administered, structured questionnaire was applied for data collection. Odds ratio with 95% confidence interval and logistic regression analysis were employed to measure the degree of association between factors and identify the predictors for occurrence of needle stick injuries.

Results: The study revealed that 38.2% of health care workers experienced at least one needle stick injury in their life time and 19% of respondents experienced injury within the last one year. Rate of needle stick injury in the previous one year was estimated at 1.34 injuries per person. Factors associated with occurrence of injuries were being a nurse (AOR = 15.39, 95%CI = 3.70—18.05), having work experience for more than 10 years (AOR = 2.68, 95%CI = 1.30—5.54), working long hours (AOR = 1.90, 95%CI = 1.10—3.31), attending fewer patients per day (AOR = 2.21, 95%CI = 1.32—3.58), self perception of high risk HIV (AOR = 2.05, 95%CI = 1.10—3.82) and non-consistent use of personal protective equipments (AOR = 1.67, 95%CI = 1.01—2.76). Two hundred sixty four (71.0%) respondents had knowledge about HIV post-exposure prophylaxis.

Conclusion: The findings of this study indicated that occupational exposures were common among health care workers. Health facilities should make available to their system that includes a standardized written protocol and reporting unit for management of occupational exposures. Improvement of work environment and appropriate management of exposed cases, including addressing the psychosocial burden health workers face after exposure is also imperative.

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56.005

Healthcare workers compliance to infection control practices in the haemodialysis unit in Sungai Buloh Hospital Malaysia

G. Chua[1], A. Adnan[2,*], Z. Abdul Wahab[1]

[1] *Sungai Buloh Hospital, Sungai Buloh, Selangor, Malaysia*
[2] *Faculty of Medicine Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia*

Background: The number of patients with end-stage renal failure treated with haemodialysis in Malaysia has been increasing in recent years. Haemodialysis patients are at a higher risk of developing infections either directly or indirectly via contaminated devices, equipment, environmental surfaces or hands of healthcare workers (HCWs). Thus compliance to infection control practices by HCWs is very crucial in the prevention of the transmission of infections among haemodialysis patients. The Haemodialysis Unit in our hospital has been in existence only for the past two years and